

In the Claims

1. (Currently Amended) A continuous time sigma delta converter comprising:
conversion means ~~(510, 520, 530, 540, 560)~~ having known non-ideal characteristics and arranged to provide an output signal;
a compensation circuit ~~(570)~~ comprising error modelling components ~~(370, 375, 380, 385, 390, 395)~~ arranged to substantially model the non-ideal characteristics of the conversion means ~~(510, 520, 530, 540, 560)~~ in order to provide a compensation signal; and
summation means ~~(490)~~ coupled to combine the compensation signal with the output signal in order to provide a compensated output signal.
2. (Currently Amended) The converter of claim 1 further characterised by:
the summation means ~~(580)~~ being arranged to subtract the compensation signal from the output signal in order to provide the compensated output signal.
3. (Cancelled)
4. (Currently amended) A method ~~for~~ of compensating for known non-ideal characteristics in a continuous time sigma delta converter ~~(510, 530, 540, 560)~~, the method comprising:
converting an input signal of one time domain to an output signal of another time domain using a converter ~~(510, 530, 540, 560)~~ having known non-ideal characteristics;
modelling the non-ideal characteristics of the converter in a compensation circuit ~~(570)~~;
and
combining a compensation signal output of the compensation circuit ~~(570)~~ with the output signal of the converter ~~(510, 530, 540, 560)~~ in order to provide a compensated output signal.
5. (Currently Amended) The converter of claim 1 further characterised by:
the non-ideal characteristics being associated with a feedback path ~~(540)~~ of the converter.

6. (Currently Amended) The converter of claim 1 further characterised by:
the non-ideal characteristics including symmetrical errors ~~(235)~~ associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.
7. (Currently Amended) The converter of claim 1 further characterised by:
the non-ideal characteristics including asymmetrical ~~(245)~~ errors associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.
8. (Currently Amended) The converter of claim 1 further characterised by:
the compensation circuit ~~(570)~~ having calibration parameters ~~(375, 395)~~ determined by a dichotomy technique which iteratively refines the values of the calibration parameters ~~(375, 395)~~.
- 9, -14 (Cancelled)
15. (Currently Amended) The method of claim 4 further characterised by:
the non-ideal characteristics being associated with a feedback path ~~(540)~~ of the converter.
16. (Currently Amended) The method of claim 4 further characterised by:
the non-ideal characteristics including symmetrical errors ~~(235)~~ associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.
17. (Currently Amended) The method of claim 4 further characterised by:
the non-ideal characteristics including asymmetrical ~~(245)~~ errors associated with non-ideal rising and falling edges ~~(230)~~ of signal transitions of the converter ~~(510, 530, 540, 560)~~.

18. (Currently Amended) The method of claim 4 further characterised by:
the compensation circuit ~~(570)~~ having calibration parameters ~~(375, 395)~~
determined by a dichotomy technique which iteratively refines the values of the
calibration parameters ~~(375, 395)~~.